

to the receiving assembly to receive an output signal from the polarizer-analyzer,

the first processing unit configured to extract, from the ellipsometric measurement, only determined selected components of the Mueller matrix describing the substrate and to control the manufacture of the substrate in relation to the extracted components of the Mueller matrix,

a second processing unit connected to the first processing unit for receiving control signals from the first processing unit, and connected to the gas panel, the pump, and the power control of the chamber, wherein,

the determined selected components are at least two selected components of the Mueller matrix that characterize the manufacture of the object, the selected components being other than ellipsometric angles  $\psi$  and  $\Delta$  and trigonometric functions of the ellipsometric angles  $\psi$  and  $\Delta$ .--

#### REMARKS

The claims have been amended slightly as to form, including changing the dependency of claim 2 and changing the matrix identification in claim 24 consistent with that of the originally-filed claims.

In view of the above amendments, applicant believes that the present application is in condition for allowance.

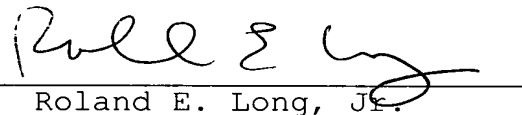
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Attached hereto is a marked-up version of the changes made to the claims. The attached page is captioned "VERSION WITH MARKINGS TO SHOW CHANGES MADE."

Respectfully submitted,

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**VERSION WITH MARKINGS TO SHOW CHANGES MADE**

IN THE CLAIMS:

Claim 2 was amended as follows:

--2. (amended) A control method according to claim  
[1] 21, characterised in that the said object is anisotropic.--

Claim 21 was amended as follows:

--21. (amended): A method of controlling manufacture of  
anisotropic objects and controlling manufacture of depolarizing  
objects, comprising the sequential steps of:

determining at least two selected components of the  
Mueller matrix that represents the object and that characterizes  
the manufacture of the object, the selected components being  
other than ellipsometric angles  $\psi$  and  $\Delta$  and the trigonometric  
functions of the ellipsometric angles  $\psi$  and  $\Delta$ ;

making an ellipsometric measurement of object during  
manufacture;

extracting, from the ellipsometric measurement, only  
the determined selected components of the Mueller matrix; and

controlling the manufacture of the object in relation  
to the extracted components of the Mueller matrix.--

Claim 22 was amended as follows:

--22. (amended) An installation for making anisotropic objects and making depolarizing objects, comprising:

an ellipsometer configured to make an ellipsometric measurement of an object during manufacture;

a processor configured to extract, from the ellipsometric measurement, only determined selected components of the Mueller matrix that represents the object and that characterizes the manufacture of the object,

the processor also configured to control the manufacture of the object in relation to the extracted components of the Mueller matrix, wherein,

the determined selected components are at least two selected components of the Mueller matrix that characterize the manufacture of the object, and

the determined selected components are other than ellipsometric angles  $\psi$  and  $\Delta$  and trigonometric functions of the ellipsometric angles  $\psi$  and  $\Delta$ .--

Claim 24 was amended as follows:

--24. (amended) A manufacturing installation, comprising:

a plasma chamber (1) with power control;

a support (3) within the chamber for supporting a

substrate (2) serving as an original element of a solid-state wafer to be manufactured;

a pump (4) connected to the chamber to maintain a pressure within the chamber;

a gas panel (6) connected to the chamber to supply the chamber with gas, the gas panel having plural gas inputs (62-65), each gas input connected to the chamber via a flow-meter (621, 631, 641, 651) and a valve (622, 632, 642, 652);

an ellipsometer (9) comprising a transmission head (91) and a receiving assembly (92), the ellipsometer arranged to control the gas panel to control a preparation of layers on the substrate based on ellipsometric measurement of the substrate,

the transmission head comprising a phase modulator,

the receiving assembly comprising a polarizer-analyzer;

a first processing unit (93) connected to the transmission head to control the phase modulator, and connected to the receiving assembly to receive an output signal from the polarizer-analyzer,

the first processing unit configured to extract, from the ellipsometric measurement, only determined selected components of the [Jones] Mueller matrix describing the substrate and to control the manufacture of the substrate in relation to the extracted components of the [Jones] Mueller matrix,

a second processing unit connected to the first processing unit for receiving control signals from the first

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processing unit, and connected to the gas panel, the pump, and the power control of the chamber, wherein,

the determined selected components are at least two selected components of the [Jones] Mueller matrix that characterize the manufacture of the object, the selected components being other than ellipsometric angles  $\psi$  and  $\Delta$  and trigonometric functions of the ellipsometric angles  $\psi$  and  $\Delta$ .--